

WHAT IS CLAIMED IS:

1. A method of controlling an elevator installation having a plurality of elevator cars each serving at least two floors in a building, the floors being subdivided into several zones, wherein travel orders each associated with one of the zones are allocated to the 5 elevator cars, comprising the steps of:
  - a) during a time that one of the elevator cars executes a travel order for one of the zones, preventing a travel order for another zone from being allocated to the one elevator car;
  - b) in response to a call for a travel order, comparing the number of free elevator 10 cars with the number of still unallocated or still unserved zones; and
  - c) allocating the travel order forming the call to an elevator car in dependence on the comparison result.
2. The method according to claim 1 including performing said step c) for a new 15 call that is assigned to a zone already served by at least one of the elevator cars by allocating the new call to a free elevator car only when the number of free elevator cars is greater than or equal to the number of zones then not being served by the elevator installation.
- 20 3. The method according to claim 2 wherein when the number of free elevator cars is smaller than the number of the zones not served by the elevator installation, allocating the new call to an elevator car which already travels in the same zone to which the new call is assigned.
- 25 4. The method according to claim 1 wherein at least one of the floors cannot be served by all elevator cars of the elevator installation and the zones include at least one favorite zone having at least one floor not able to be served by all of the elevator cars, and said step c) is performed by allocating the new call in dependence on whether or not it is assigned to the at least one favorite zone.

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5. The method according to claim 4 wherein at least one of the elevator cars is a favorite car which can serve all floors of the at least one favorite zone, whereby when the new call is assigned to the at least one favorite zone, said step b) is performed by comparing the number of free favorite cars with the number of still unallocated favorite zones or favorite zones still not served by the elevator installation and said step c) is performed by allocating the new call in dependence on the comparison result, and when the new call is not assigned to the at least one favorite zone, said step b) is performed by comparing the number of free non-favorite cars with the number of still unallocated non-favorite zones or non-favorite zones still not served by the elevator installation and said step c) is performed by allocating the new call in dependence on the comparison result.

6. The method according to claim 5 wherein the new call assigned to the at least one favorite zone is allocated to a free favorite car only when the number of free favorite cars is greater than or equal to the number of favorite zones not then served by the elevator installation and the new call not assigned to the at least one favorite zone is allocated to a free non-favorite car only when the number of free non-favorite cars is greater than or equal to the number of the non-favorite zones not currently served by the elevator installation.

20 7. The method according to claim 1 including performing said step c) when the number of free elevator cars is smaller than the zones not currently served by the elevator installation and a zone is served by two or more elevator cars by blocking one of the two or more elevator cars against further allocations until the one elevator car is free and thus an allocation is accessible to one of the unserved zones.

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8. The method according to claim 7 wherein when the elevator installation has a total number of zones smaller than or equal to the number of elevator cars, one of the elevator cars which serves the same zone as another one of the elevator cars is blocked per unserved zone against new allocations.

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9. The method according to claim 1 wherein the subdivision of the floors into several zones is dependent on access authorization of passengers desiring to travel to the floors.

5        10. A control device for an elevator installation for performing the method according to claim 1 comprising: software adapted to run on a computerized elevator control and performing said steps a) through c).

11. A method of controlling an elevator installation having a plurality of elevator  
10 cars each serving at least two floors in a building comprising the steps of:

- a) subdividing the floors into several zones based upon access authorization of passengers;
- b) allocating travel orders each associated with one of the zones;
- c) during a time that one of the elevator cars executes a travel order for the one  
15 of the zones, preventing a travel order for another zone from being allocated to the one elevator car;
- d) in response to a call for a travel order, comparing the number of free elevator cars with the number of still unallocated or still unserved zones; and
- e) allocating the travel order associated with the call to an elevator car in  
20 dependence on the comparison result.